

VOL. VI

SEPTEMBER 1933

No. 3



Agricultural Education



Farm Home of an Illustrious Farmer

Ashlawn, Charlottesville, Virginia, the farm home of James Monroe, fifth president of the United States

In order to really establish an ideal it is necessary to develop some abilities involved in carrying out the ideal.

EDITORIAL COMMENT

A monthly magazine for teachers of agriculture. Managed by an editorial board chosen by the Agricultural Section of the Vocational Association and published at cost by the Meredith Publishing Company at Des Moines, Iowa.

MANAGING EDITORS

Carrie Hammonds, Lexington, Kentucky.....Editor
Sherman Dickinson, Columbia, Missouri.....Associate Editor
F. E. Moore, Des Moines, Iowa.....Consulting Editor
W. F. Stewart, Columbus, Ohio.....Business Manager

SPECIAL EDITORS

A. M. Field, St. Paul, Minnesota.....Methods	Book Reviews
A. P. Davidson, Manhattan, Kansas.....Professional	Research
A. K. Getman, Albany, New York.....Research	Research
Edna C. Magill, Blacksburg, Virginia.....Future Farmers of America	Supervised Practice
C. R. Wiseman, Brookings, South Dakota.....Farm Mechanics	Part-time Schools
H. O. Sampson, New Brunswick, New Jersey.....Farm Mechanics	Evening Schools
G. A. Schmidt, Fort Collins, Colorado.....Supervised Practice	Part-time Schools
Lester B. Pollock, Topeka, Kansas.....Farm Mechanics	Evening Schools
Louis M. Sasman, Madison, Wisconsin.....Supervised Practice	Part-time Schools
V. G. Martin, State College, Mississippi.....Supervised Practice	Evening Schools

EDITING-MANAGING BOARD

F. E. Armstrong, Hawaii; J. D. Blackwell, Maryland; Paul Chapman, Georgia; Sherman Dickinson, Missouri; R. W. Gregory, Indiana; Carrie Hammonds, Kentucky; Ray Fife, Ohio; William Kerr, Idaho; C. H. Lane, Washington, D. C.; F. E. Moore, Iowa; L. M. Sasman, Wisconsin; W. F. Stewart, Ohio.

Subscription price, \$1 per year, payable at the office of the Meredith Publishing Company, Des Moines, Iowa. Foreign subscriptions, \$1.25. Subscriptions terminate January 1 or July 1. Single copies, 10 cents. Contributions should be sent to the Special Editors or to the Editor. No advertising is accepted.

Entered as second-class matter, under Act of Congress, March 3, 1879, at the post office, Des Moines, Iowa.

TEACHING, A SCIENCE AND AN ART

THE job of the teacher is to teach. In September we go back to school. We teachers of vocational agriculture never stop teaching, if we are true teachers, but in September we begin another year of teaching.

Teaching is a science and an art, for some people. Can your teaching qualify as science? Can it qualify as art?

If teaching is only a mixture of guess work and tradition, it is not a science. If teaching is the following of recipes, it is not a science. In my work with undergraduates and graduate students with teaching experience, I find many of them wanting to learn *how to do* things, wanting a *rule* which will bring success. They would like to have a guarantee. Seemingly, some of them would not mind being bound, being a slave to the rule, being a blind follower of the recipe. This instead of illumination and liberation. This instead of growth, instead of the thinking which is the final source of all progress.

Teaching is a science, for the most part, only when we take selected portions of other sciences and bring them to bear on the problems of teaching. This is not to say that teaching science has no content of its own. But as Dewey points out, there is no more a special independent science of education than there is of bridge making. Quoting Dewey:

"There is a science of bridge building in the sense that there is a certain body of *independent* scientific material, say mathematics and mechanics, from which selections may be made and the selections organized to bring about more effective solution in practice of the difficulties and obstructions that present themselves in actual building of bridges. It is the way the material is handled and organized with reference to a purpose that gives us a right to speak of a science of bridge building, although the building itself is an art, not a science. The sciences of mechanics and mathematics are, in themselves, the sciences which they are, not sciences of bridge building. They *become* the latter when selected portions of them are focused upon the problems presented in the art of bridge building." (The Sources of a Science of Education, pp. 34-35.)

Men built bridges before there was a science of mathematics or of physics. But with the development of physics, there arose the possibility of building better bridges, the ability to build them under conditions which previous methods could not cope with.

From what subjects may materials be drawn that have a bearing on teaching problems? The answer is—from any subject, or any facts, or any principles, that enable the problems of teaching to be dealt with in a better way.

All of this is not to deny, but rather to affirm that teaching is a science. It is not an isolated science (if there is any such thing), but takes selected portions of other sciences (psychology, philosophy, sociology, and others) and brings them to bear on the problems of teaching. The problems

of teaching are to be found in teaching. The technique for dealing with the problems cannot be borrowed from other sciences.

Teaching is also an art. There is no opposition between science and art, although there is a distinction. The operation, or performance, is an art. Like engineering, teaching is an art which incorporates more and more of science into itself. And just as the capable engineer does not think of scientific findings as imposing upon him a certain course which he must rigidly adhere to, so the capable teacher does not take a scientific finding and convert it into a rule-of-thumb procedure. Only third- or fourth-rate engineers and third- or fourth-rate teachers adopt these courses.

We must not assume that a teacher is an artist simply because he is a teacher. He may not have such distinguished rank. The artist-teacher of vocational agriculture is guided by ideals and purposes that are bigger than all the books and courses of study. He is guided by a bigger goal than simply the end that Joe be able to select a cow, or to balance a ration, or to produce a baby beef. He contemplates a boy, Joe, who shall know how to think, who shall appreciate tested truth, know beauty, who is interested in human beings, and who possesses those qualities that will make him a wise, happy, and useful citizen. These ideals are of the stuff that makes art, and science contributes to their attainment. This goal outleaps prescriptions and formulations.—C. H.

WHERE TO SEND YOUR ARTICLES

THIS magazine is always in need of articles, not mere items of local news interest but articles that carry an idea to teachers of agriculture. The magazine exists for teachers of agriculture. We want articles from state supervisors, district or county supervisors, teacher trainers, and teachers of agriculture. Many of our very best articles are written by teachers of agriculture. Send your article to the editor of the section of the magazine where you think the article belongs. In order that you may have the complete address of the editors, their names and addresses are listed below.

Part-time Schools editor—Louis M. Sasman, State Board of Vocational Education, Madison, Wisconsin.

Evening Schools editor—V. G. Martin, Mississippi State College, State College, Mississippi.

Book Reviews editor—A. P. Davidson, Kansas State College of Agriculture, Manhattan, Kansas.

Methods editor—A. M. Field, University of Minnesota, St. Paul, Minnesota.

Professional editor—A. K. Getman, The State Education Department, Albany, New York.

Research editor (Eastern Region)—E. C. Magill, Virginia Polytechnic Institute, Blacksburg, Virginia.

Research editor (Western Region)—C. R. Wiseman, Brookings, South Dakota.

Future Farmers of America editor—H. O. Sampson, State College of Agriculture, New Brunswick, New Jersey.

Supervised Practice editor—G. A. Schmidt, Colorado Agricultural College, Fort Collins, Colorado.

Farm Mechanics editor—L. B. Pollock, State Board for Vocational Education, Topeka, Kansas.

MEET THE NEW EDITORS

YOU will notice in the list above two new names on the editorial staff. Upon the resignation of C. L. Davis as editor of Evening Schools and of Roy H. Thomas as editor of Part-time Schools, the Managing Board looked the country over to find two men competent to take their places. Fortunately the selections of the Board finally agreed to accept the appointments. Mr. Louis M. Sasman, State Supervisor for Agricultural Education in Wisconsin, is the new editor of Part-time Schools. Mr. V. G. Martin, Head of Rural Education Department and Professor of Agricultural Education, Mississippi State College, is the new editor of Evening Schools. Both men are exceptionally well qualified for their posts.



Professional



FRANK PIERREPONT GRAVES

J. CAYCE MORRISON, Assistant Commissioner for Elementary Education, State Education Department, Albany, New York

"President of the University of the State of New York, Commissioner of Education for New York, administrator, scholar, teacher, friend who, in the administration of the school system of the State of New York, exemplifies in practice many of the fundamental principles in state school administration set forth in this volume."

Such was Dean Cubberley's dedication of his epoch-making work on State School Administration to his friend and fellow worker in education, Frank Pierrepont Graves. In his capacity to give expression to the best theory of education through the daily *J. Cayce Morrison* work of a large staff in a highly centralized administrative organization lies the strength of the President of the University of the State of New York and Commissioner of Education.

Few men in American education have had so varied and versatile a career as Doctor Graves. His professional career falls into four distinct periods: First, as student and teacher of Greek; second, as president of young and struggling state universities; third, as dean and professor of education; and fourth, as commissioner of education.

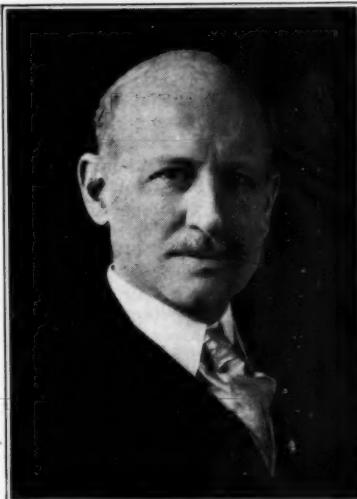
As a youth he majored in Greek at Columbia University, and then served first as assistant professor, and later as full professor of Greek at Tufts College, Massachusetts. Even in that early period his capacity for productive scholarship was evinced in his authorship of *Burial Customs of the Greeks*, an *Edition of the Philoctetes of Sophocles*, in the joint authorship of *A Beginner's Book in Greek*, and in the publication of a number of articles in the realm of the Classics.

In 1896 he shifted from the protective ease of the chair in Greek and the enjoyment of his New England heritage to the presidency of the young and struggling University of Wyoming. Here, paraphrasing one of his own remarks, his success depended upon the support of people more concerned with beet root and arid agriculture than with Greek roots and classical culture. Within two years the registration of the university doubled, and he won a merited promotion to the presidency of the larger yet relatively new State University of Washington. Here he stayed five years. During these two presidencies the youthful president learned the art of living with governors and legislators, where the game of politics had



not yet lost the rough and tumble qualities of the new West. Also, his versatile mind and genial capacity for making friends led him to cultivate the unlimited acquaintanceship of men in every walk of university life. He left the presidency of the University of Washington with a keen insight and understanding of the forces producing and supporting American higher education and a cordial, sympathetic understanding of the problems of all the departments of an American university. The student of antiquities had visioned the necessity for scholarship in all the aspects of American education.

After a period of study at the University of Chicago he went to the University of Missouri as Professor of History and the Principles of Education, and for a time became Acting Dean of the School of Education. After three years in Missouri he went to Ohio State



Frank Pierrepont Graves

University to a similar position, and remained there six years, serving as Director or Dean of the Summer Session and as Professor of the History of Education during the academic year. At the close of the six years he used his sabbatical year to return to Columbia University for a year of graduate study at Teachers College. Here he majored in his chosen field of Education and earned a second doctor's degree. This year was followed by a period of eight years as Professor of Education and Dean of the School of Education of the University of Pennsylvania. During this period of seventeen years he taught in summer sessions at Wisconsin, Chicago,

Columbia, had a number of trips abroad, pursued study in his chosen field, and lectured continuously to educational groups far and near. In fact, one of his former colleagues says that his chief recollection of Graves during this period was that of a man, bag in hand, hurrying across the campus to catch a train for some lecturing engagement. But while he was building up a wide acquaintance with school people and school problems, he was also proving himself a productive scholar. It was during this period that he wrote *A History of Education Before the Middle Ages*, *A History of Education During the Middle Ages*, *A History of Education in Modern Times*, *Great Educators of Three Centuries*, *Peter Ramus and the Educational Renaissance of the Sixteenth Century*, *A Student's History of Education*, and *What Did Jesus Teach?*, supplemented by more than one hundred articles, reviews, et cetera in current literature. Toward the close of this period he succeeded President Nicholas Murray Butler as editor of the *Educational Review*.

With such a background, Frank Graves came to the Commissionership of Education in the State of New York, the largest and most responsible administrative post in American education. Probably no man in the history of American education had brought so rich and varied a training and experience to so important a task. His youthful years in the study and teaching of the Classics had given him a deep and lasting understanding and appreciation of those elements of Greek and Roman civilization that underlie our present cultural and therefore our present educational systems. In his association with the colleges and universities chartered by the Regents of the University of the State of New York and in his understanding of their problems, his earlier training and experience in the Classics has proved no mean asset. His seven years in playing with the

It has seemed fitting to close this series of articles dealing with the contributions of leading educators, by a review of the services and ideals of one of the ablest administrators in the field of American education. Specialists in agricultural education have come to realize the paramount importance of sound leadership in integrating their services with the entire program of education. President Graves personifies such leadership. For more than a decade the vocational education program of the Empire State has expanded rapidly under his administration. His ideals of service to our youth who desire training for useful employment have guided and inspired us.

Dr. Morrison, who has prepared the present article, is an intimate professional associate and a close personal friend of President Graves.—A. K. Getman.

rough and tumble forces of Western politics contributed somewhat, I suspect, to the skill with which he has met the many and complex problems that continuously press upon the chief executive officer of the great school system of America's largest state. His seventeen years as dean, teacher, lecturer, writer, and student gave him insight into the problems of public education from kindergarten to university equalled by few men in administrative work. Added to this varied background of experience and training, must be reckoned the innate culture and temperament of the man.

Back in June 1921, when it was first announced that Doctor Graves had been elected to the commissionership of education in New York, I asked one of his former colleagues what manner of man our new Commissioner was. He replied that we would find him quiet, modest, unassuming, disposed to avoid a fight; but that, if and when difficulties arose, we need have no fear but that he would be a resourceful and staunch defender of the cause of public education. After he had been here a year or two, one of my older colleagues in discussing the merits of the new Commissioner said: "I have served under all his predecessors, and I want to say that we have not had a Commissioner who was so thoroughly concerned to learn the views of every one of his associates and to give their opinions full play, but who at the same time understood more clearly the fact that he was Commissioner of Education and that the final responsibility was his." Not long since, I asked one of the Regents what he considered the Commissioner's chief assets to be. After a moment's hesitation he said that in all of his years of association with the Commissioner he had never yet detected any sensitiveness on the Commissioner's part to criticism; that every man on the Board of Regents, felt free to say whatever was in his mind, knowing that the Commissioner would take no personal offense. Speaking further, he said that he had never detected any feeling on the Commissioner's part other than a desire to profit and learn from any criticism made. These comments of colleagues and associates indicate certain characteristics which constitute the strength of Doctor Graves as Commissioner of Education.

Since the record is not complete, it is perhaps unwise to attempt a comprehensive analysis of Commissioner Graves' contribution to education during this fourth period of his educational career. However, certain contributions stand out clearly enough to be stated without fear of doubt or contradiction.

Under his administration the last vestiges of political favoritism have disappeared from the appointments in the State Education Department and in state educational institutions. The principle that the position should seek the man is perhaps as well established under his administration as it is in any educational institution in the country.

During the dozen years he has been Commissioner of Education he has been successful in bringing a high degree of professionalized outlook into what was

a highly centralized administrative organization. Perhaps those outside the Education Department can best evaluate the professional contribution of the Education Department under his leadership.

He has been largely responsible for injecting the spirit of tolerance, of good will, and of sympathetic understanding into the work of the entire Department both through its interdepartmental relationships and its contacts with the schools throughout the state. In times of stress and strain the spirit of good will is invaluable.

The facility of his voice and pen has been a powerful factor in advancing the cause of education and gaining for it material support. His published *Addresses and Papers* of this period run well into the hundreds. They include every conceivable theme pertinent to the realm of education. A mere perusal of the table of contents of the two volumes discloses something of the vast range of the Commissioner's contacts with and interest in educational problems.

Principles in Practice

For a dozen years, Frank Pierrepont Graves has been leading the greatest experiment in state educational administration that has yet appeared in American education. He has exemplified in practice most of the fundamental principles in educational administration set forth by Cubberley and others who have devoted their lives to advancing the theory of American education.

Along with his busy rushing days, "on railroad journeys and other forced interludes during a busy administrative life," he has found the time and opportunity to prepare what is probably the best single textbook for the young or prospective school administrator under the caption of *The Administration of American Education*. In the six hundred pages of this volume we perceive the fine fruits of the four periods of his career—his understanding of the relationship between education and the society in which it exists. There is food for much thought in the final sentences of that volume:

"Only as there is a nice adjustment between the individual and society can the balance be achieved that is essential to successful democracy. From this point of view a new educational philosophy is emerging, which carefully provides for the interests of both, and it is obvious that its doctrines are actually permeating the administration of public education today. Any school system that fails to grasp its implications or to embody its principles can not hope to realize the function of education in America."

The Teacher Who Smokes

IT IS probable that the modern point of view regarding smoking, and particularly cigarette smoking, may be responsible in part for the lack of judgement shown by some teachers regarding both their own habits and the restrictions which they may put upon the boys under their supervision. I believe

every teacher ought to reason this matter out very carefully and I feel sure that most teachers will agree with the following conclusions.

Regardless of all other considerations, it is still generally conceded that it is not well for growing boys to smoke cigarettes or tobacco in any form. The habit is still considered contrary to good athletic training. The fire risks as well as other considerations lead school administrators to insist that there shall be no smoking by pupils on the school grounds or in connection with school functions. Any teacher strengthens his position with the pupils if he lives up to the rules imposed upon the pupils on the school property or at any of the school functions elsewhere.

Any young teacher who considers that he is so enslaved by the tobacco habit that he cannot abstain for the periods necessary to comply with the preceding advice needs to take account of stock for his own benefit. When any habit appears to have such a grip upon a man that he feels helpless, it is time for him to question whether he should not devote his attention to breaking that habit.

Every instructor should attempt by example and by influence to assist the school administration in carrying out this social guidance regulation, found desirable for one reason or another. What has been said about smoking might apply equally well to the use of profanity or vulgar language or anything else which the best elements in society do not consider appropriate. Laxity regarding any of these in our relations to the school rule and the administration seems to be the first easy step toward general laxity in regard to other important regulations. Some of these matters which are overlooked by the public in general on the part of ordinary individuals are not easily forgiven teachers, and are still very offensive to a valuable portion of our constituency.

The previous statements are not intended to deny the personal rights of any teacher and in whatever may be considered appropriate places the present public attitude might not condemn a teacher for smoking. Public opinion probably would condemn a teacher for being a slave to any habit. The public does expect teachers as well as the clergy to represent the best in thought and action.—F. E. H., Massachusetts Staff Letter.

Making Citizens, Teachers' Job, Says King

IN WHAT probably will be his last talk to a group of vocational agriculture teachers, W. Harry King, member of the Federal Board for Vocational Education representing agriculture, recently made the following remarks:

As moulder of men the teacher is given great opportunity—you vocational agriculture teachers have in your hands the finest of human clay, the honest, healthy farm lad.

Mrs. Borglum, wife of the famous

(Continued on page 39)

Principles Which Should Control a Program in Vocational Agriculture in Any School

Note: These principles were stated by Dr. Sherman Dickinson in a June service letter, sent to teachers of vocational agriculture in Missouri. The editor feels that the principles should prove helpful to agriculture teachers all over the country.

- (1) *Vocational agriculture in the schools must retain the vocational objective.* It seems to me that no matter what changes may take place in the agricultural education program, we must hold to the idea that it must be organized and taught with the purpose in mind of fitting farm boys and farmers for useful employment in agriculture. The work must not be permitted to become academic or purely cultural in character.
- (2) *The organization of the agricultural courses must be such as to fit into the program and schedule of the high schools without undue difficulty or disturbance.* Vocational agriculture is one of the courses offered in high school, it is only a part of the offering. Although it is admittedly a very important course in the rural or small town high school, we must expect that it should not interfere unduly with the usual or satisfactory organization of the school as a whole. It should be so arranged that the course will fit readily into a normal high school schedule.
- (3) *Vocational Agriculture courses must become an integral part of the training program for rural boys.* The Cardinal Principles of Education have been recognized for years as a basic guide in educational matters. These principles include one (the fourth) which specifically states that "vocational education should equip the individual to secure a livelihood for himself and those dependent on him, to serve society well thru his vocation, to maintain the right relationships toward his fellow workers and society, and as far as possible, to find in that vocation his own best development."
- (4) *Supervised practice (home project work) must be retained as an important phase of the training program.* There is adequate proof available indicating that supervised practice is a valuable and

A large proportion of the boys enrolled in our rural public high schools will follow the farming occupation. The school which does not offer specific vocational training for these boys is not functioning as it should. It is failing to provide the kind of education which its patrons have a right to expect. Vocational agriculture should be a part of the minimum program of a school with a large rural enrollment just as much as should English, mathematics, and history.

- (4) *Supervised practice (home project work) must be retained as an important phase of the training program.* There is adequate proof available indicating that supervised practice is a valuable and

efficient aid in the learning processes in vocational agriculture. Its values are not limited to direct benefits to the student, but have a marked bearing upon agricultural advancement in the communities in which the work is conducted. Nothing should be allowed to interfere with the continuance of this device, rather it should be increased in scope and use.

- (5) *Courses and curricula in agriculture must be carefully adapted to the needs, interests, and capacities of the students.* Persons responsible for courses and curricula must bear in mind the character of the boys enrolled in vocational classes, and select the content of courses accordingly. There is a tendency to fail to recognize pre-course training and knowledge on the one hand, and to expect more of the student in understanding complex situations on the other. Student need and interest, on the basis of individuals, must be given thoughtful consideration.
- (6) *Courses must include only the amount of subject matter which can be taught thoroughly.* There has been too much of a tendency to crowd the courses with subject matter covering a wide field, with the result that students "learned a very little about a great deal." We are interested in developing functioning knowledge and abilities; we must not be satisfied with teaching about farming, we must teach how to farm.
- (7) *Courses should include only the fundamental, typical, and practical subject matter of agriculture.* This principle is a corollary of the sixth. Adherence to it requires a careful evaluation and selection of subject matter to the end that the training period may be devoted to studies that will be most worth while.
- (8) *Teaching must be characterized by procedures which will cause students to think and reason intelligently in addition to acquiring factual knowledge and operative skills.* It is impossible in the time available to give students specific preparation for all of the problems with which they will be faced. The "rule of thumb" procedure would not function anyway, for new problems are constantly arising for which no specific solution is now available. If we are to adequately prepare pupils for these new situations, we must give them adequate training in problem solving procedure.
- (9) *Course content and teaching procedure must emphasize principles rather than facts alone.* Facts as such are important, but they have a greater value in developing principles, laws, and generaliza-
- (10) *Teachers must give attention to the development of proper ideals, attitudes, standards, and values in agriculture and rural living.* No single group of men can do more in this direction than can the teacher of vocational agriculture. Thru his close association with farm boys, both in and out of school hours, and his contacts with parents and others in the community, he can do much to bring about an improved rural family and community life. Teacher activity must not be limited alone to the economic aspects of agriculture, but must include attention to its broader social problems.
- (11) *Teachers must guide and direct students primarily thru discussion and study, including laboratory, demonstration, and field trip, rather than by means of setting tasks to be done and listening to formal recitations.* In this connection, attention should be given to the desirability of clearly recognizing individual differences and of meeting the situation by the individualization of teaching to a considerable degree.
- (12) *The curriculum in agriculture must be so organized as to be progressive in interest and difficulty.* The ability of students usually increases with experience and training thru the high school period. The agricultural curriculum must recognize this, beginning with the simpler problems and gradually expanding to those which require more skillful thinking and more mature judgment. The program, so far as the boy is concerned, should be gradually expanding rather than contracting.
- (13) *Efficiency and economy of teaching must be given due consideration in course and curriculum planning.* So far as possible the sequence of courses, both agriculture and related science, should be such as to afford the best relationship for learning. Courses such as general science may well be utilized as a valuable part of the farmer training program.
- (14) *The organization of vocational agriculture must be such as to provide training opportunity for all farm boys desiring it.* Under ordinary circumstances only one teacher can be provided for each school. The schedule and length of class periods should be such as will enable him to accept all qualified farm boys who desire to enroll for vocational agriculture and

(Continued on page 48)

A Modified Smith-Hughes Plan for Macedonia

HAROLD B. ALLEN, Director of Education, Near East Foundation

WAR ridden Macedonia has sent out many calls for help from the time of St. Paul down to the present day. The last call, "Come over into Macedonia and help us," was for education—some form of practical education which would raise the cultural and economic standards of the people and teach them how to live as well as how to make a living. A modified form of the Smith-Hughes plan was the answer.

The Macedonian program covers 54 rural villages in this northern province of Greece and includes what we consider to be the "four essentials" (to quote Dr. Thomas Jessie Jones) of rural education. These essentials are represented by the departments of Agriculture, Recreation, Home Welfare, and Health-Sanitation. The type of organization now in effect is the result of one year of careful experimentation carried on in cooperation with the Greek government and completed in 1929. The result of this experiment is a well-functioning plan which correlates certain features of the Smith-Hughes Act with elements of the Smith-Lever work, and the two combined with a Greek law designed with somewhat the same ends in view. We have, therefore, a scheme which, experience indicates, is well adapted to meet the peculiar conditions of rural Macedonia.

AGRICULTURE

The agricultural work is more closely related, perhaps, to certain activities found in America than are some of the other sections of the program. This branch includes a winter phase of instruction and a summer period of supervision. It utilizes such familiar concepts as farm surveys, supervised practice, home projects, community service, and short unit courses worked out on the job basis. The practical application of the winter instruction is carried out on the farms of the peasants themselves; in other words, no "model farms" or experimental plots are conducted, but demonstrations are made on the land of private owners, and only when the individual can be converted to the idea of using a new crop, a better animal, or an improved practice.

This procedure is comparatively inexpensive and especially so in an impoverished country where, strange as it may seem, model farms and highly organized experiment stations are the order of the day.

Such a set-up utilizes the services of young men who are graduates of Greek Farm Schools (secondary and collegiate) and whose preparation is sup-

***Note:** In this article villages and agricultural districts are synonymous. In the Near East farmers congregate in villages and do not live on isolated farms as in America. The village is entirely rural, and the only trades are those necessary to meet the essential needs of farm people.

plemented by an intensive course of in-service training. Each man is responsible for a program of work in 6 villages; thus the 54 centers require a staff of 9 agriculturalists. The winter term, which extends from October 1 to April 1, includes evening classes for the peasants, natural science lessons in the local schools, cooperation with native teachers in promoting school gardens, and the giving of individual assistance whenever called upon. Most of the men spend two days in a village for this semi-formal type of service, covering in two weeks all six centers. Some of the leaders divide their areas into two sections of three villages each, working in one district from October to January, and in the second from January to April. This arrangement enables them to devote two days a week in each village, thereby covering the three centers during the six working days.

Growing out of the winter activities are various types of practical projects which require careful supervision during the six summer months from April to October. The evening instruction is expected to lead to the selection of special enterprises for adult projects. Contacts made among the older boys in the local schools and with young men just out of school are intended to develop into good home projects. Cooperation with the local school should result in a school garden. Each school in Macedonia, in fact throughout Greece, is assigned by law a small plot of land. This land is usually ineffectively used, and frequently not cultivated at all, due to the fact that the instructors are quite academic, and, moreover, carry a tremendous load of daily teaching. The Near East Foundation agriculturalist with the aid of the pupils has the time and the training to get these small plots of land under cultivation. Minimum standards, gradually evolved as a result of experience, require that the leader have the following activities under way by the beginning of the summer period:

Not less than 24 adult farmers promoting special enterprises
At least 18 boys and young men carrying home projects
A minimum of 6 school or village gardens.

Such activities supplemented by numerous cases of individual assistance make up the supervised practice program of these agricultural agents. The following figures on travel, taken from the latest annual report, may be of interest to American readers.

Kilometers travelled by field workers during the year:

On foot.....	9534
By horse.....	9415
By car.....	3371
By train.....	1069
Grand total kilometers.....	23,389.

Without going into further detail, this brief description should give the

reader a fairly accurate picture of the agricultural set-up.

RECREATION

Recreation in its broader meaning is a vital need in these primitive areas. In the Macedonian program recreation is so interpreted as to include athletics, reading rooms, and visual education. Games, including a few competitive events, are promoted throughout the year and then concluded with a large field day held at Salonica and participated in by peasant boys from the 54 districts. In all of this work each agricultural agent is considered as a direct representative of the recreational supervisor. It is necessary, therefore, to secure young men who are active, interested in boys, and who have some knowledge of athletics. The recreational program includes also the organization and maintenance of reading rooms as one means of counteracting the influence of the coffee house, the counterpart of the old corner-saloon. This enterprise is always developed on a co-operative basis. The village provides a suitable room with the necessary furnishings, and Near East Foundation supplies about three hundred books written in simple Greek, as well as papers, pictures, charts, and indoor games. The result is a neat little center with a wholesome atmosphere where young and old may gather to read, to attend the agricultural lessons, or see good stereoptican pictures. In this connection it should be added that the supervisor carries on all of his trips a small portable projector which he uses effectively. When one considers the absolute lack of decent social centers, the scarcity of good reading material, the limited amount of wholesome recreation, it is not difficult to visualize the need of a thoroughly functioning recreational department in a well-rounded program of rural education.

HOME WELFARE

If we are to raise the standards of country folk in a primitive region such as Macedonia, we must somehow extend our influence into the home. The department of Home Welfare is charged with this responsibility. Directing this work is a highly competent young woman, trained in agriculture and home economics, a graduate of Cornell University, and experienced in county extension work. The Home Welfare department began in a small way, developed as experience was gained, and finally evolved by gradual and natural stages to a point where all activities are organized entirely around what we have chosen to call Home Demonstration Centers. A Home Demonstration Center is simply a typical peasant home, made clean, sanitary, properly lighted and ventilated, and equipped with the usual type of inexpensive furnishings. In charge of this demonstration are two young women—one a nurse, the other

a home economics instructor. Here in this "home-school" these two young women carry on a systematic program of instruction during the winter months, in child care, health, home sanitation, cooking, etc. In addition to this type of service, made available to the older girls and mothers of the community, home visits are regularly made, and hygiene lessons are given in the local school.

During the summer the house is used as a day nursery for the children of working mothers. Farm women of the Near East carry their full share—and more—of the heavy work. Mothers must of necessity take their younger children with them to the fields. There they spend the day, leaving their babies under a wagon, or in the shade of a tree, or, not infrequently, entirely exposed to the hot tropical sun. Throughout the year the Center serves as a daily example of what a clean, comfortable, sanitary home should be. Each of these dwellings has, as a part of its equipment, a vegetable garden, a few hives of bees, and some poultry. The management of these home enterprises forms a part of the responsibility of the two young housekeepers in charge of the place.

HEALTH-SANITATION

Coming to the fourth "essential", we must register the fact that rural sanitation is no less of a problem in this section of the country than are the other three. Malaria, contaminated drinking water, lack of proper toilet facilities, improper disposal of waste, filth, and general untidiness are everywhere. In this department chief emphasis is placed on stimulating the villagers to improve their condition by means of their own efforts. Careful surveys are made, and on the basis of these surveys one village is selected each year as the major project in health-sanitation. Such a village is always one which is in a particularly distressing condition, but at the same time one in which the problems involved are not too technical and too extensive from an engineering or medical point of view; to be specific, a village which could greatly improve its condition by means of its own efforts if the people were but inspired and had the will to do—and there are many places of this kind. Having decided upon his major project, the sanitation supervisor arouses the interest and enthusiasm of the people, shows them what could be done if they would, and, with the use of volunteer labor and local materials, drains swampy areas, rebuilds old fountains, improves the roads, and otherwise renovates the whole place. When the metamorphosis is complete, the inhabitants are able to take pride in the fact that the change was brought about by their own efforts plus good leadership. The educational value of such a policy is obviously great. One rural village in the vicinity of old Boeria of Biblical fame was last year completely renovated by this method. The total investment of Near East Foundation in addition to the leadership provided, was \$40. The people have learned how to work together, have discovered that it is unnecessary to remain forever in the slough of despond, that the means for improv-

ment lie in their own hands. The village is more slightly, more convenient, more comfortable to live in; and malaria, with its weakening effects and the tremendous loss of work which it causes, has been reduced.

The Macedonian project is typical of the educational programs conducted by Near East Foundation in six countries of the Near East. In all areas the work has to do with some phase of practical education, or extension, the chief emphasis is placed on rural problems. In every instance the work is conducted in cooperation with the government concerned.

Achievement in Vocational Agriculture

ARTHUR CAMPBELL, Superintendent Alva Neal High School, Franklin, Indiana

VOCATIONAL agriculture was introduced into the high school curriculum in the fall of 1929. This enabled the curriculum to meet the needs of those farm boys who were expecting to return to the farm after graduation. I shall relate the achievement of those boys who have graduated from the high school, in the course offered in vocational agriculture.

In 1930, seven boys were graduated who had spent one year in vocational agriculture. Of this number, two are farming now, one is a student in Purdue University, one a student in Franklin College, one a student in West Virginia Law School, one a painter, and one a printer. The two boys who are farming live on rented farms. Only three of this group own their farms, two of which are college students now.

In 1931, four boys were graduated who had completed two years in vocational agriculture. All four of this group are now farming. However, one boy of this group won a scholarship in Franklin College for one semester and is a student at present. It is doubtful whether he will continue as a student longer than the one semester.

In 1932, seven boys were graduated. These boys had three years of training in vocational agriculture. All seven of this group are now farming. Three own their farms, while four live on rented farms. One boy in this group is farming in partnership with his father. Last spring he rented an additional 160-acre farm which he intends to manage and to operate along with their home farm. The boy sowed 60 acres of wheat on this farm last fall. He is the manager of this 160 acres. Two other members of this group were unfortunate last spring in losing their father. This left the two boys and their mother to operate the home farm. These boys shouldered the responsibility well and are putting into practice the things they learned in vocational agriculture. At present they are developing a herd of purebred Chester White hogs.

Eighteen boys have graduated in the past three years who have taken the farmer training course. Twelve are farming now, four are attending colleges, while one is a painter, and the other a printer. The boy who is a painter lived on a small acreage near the city, and never had much of an opportunity to become a farmer. The

class this year has 24 farm boys enrolled; 14 live on farms owned by their parents.

The agricultural curriculum offers six units in agriculture and one in related science. In the freshman and sophomore years swine, dairy, poultry, corn growing, small grains, legumes, sheep, and horses form the content. Each of these enterprises is divided into a series of problems or farmer jobs. One-half, more or less, of these problems are taught one year, and the rest are taught the next year. In the junior and senior years we include orcharding, vegetable growing, beef cattle, farm management and marketing, farm engineering and shop. Also the more advanced problems relating to crops and livestock. Each one of these enterprises is analyzed into a series of jobs, as in the other two years. A part of the jobs are taught one year, and the others the next year. Agricultural physics is taught as a related science every other year to juniors and seniors.

At present 5 boys are studying and managing the production of their home dairy herds, 14 boys are in partnership with their fathers in the conduct of the swine business, and 20 are producing corn and making a study of the problems attendant upon production. In addition, 10 boys are growing wheat, 2 are growing legumes, and 5 have been making management and cost studies with the farm flocks of poultry, while 2 others are making complete farm management and farm record studies of the entire farm business on their home farms.

All of these boys have had their vocational agriculture under J. L. Van Cleve, who was selected by our board to introduce the course.

We believe that the program of farmer training as it is organized and administered in our school is meeting a real need of a large and select group of our high school population. The record of its service to the pupil is the best evidence as to how it is being received by him.

Making Citizens

(Continued from page 36)

sculptor, tells this story. Mr. Borglum had his studio in their home, and the colored maid had seen brought into that studio an immense block of marble. After some weeks the maid saw appearing in the block of marble the face of Lincoln. She asked Mrs. Borglum, "How did Mr. Borglum know that Mr. Lincoln was in that block of marble?" I think of this story every time I see Borglum's "Lincoln" in the Hall of Fame in the Capitol at Washington.

You vocational agriculture teachers are given something better than marble with which to work. You have high-grade human clay. You will find few Lincolns—you will find some—but you can mould loyal, substantial, progressive American citizens—and that really is your job. If America endures, it will be because of the trained youth coming up to take the place of the men of today.

I congratulate you upon your opportunity. If you can not make money, you can make *men*—and that is your task and your privilege.



Supervised Practice



A Workable Standard for Supervised Practice

G. A. SPIDEL, Waverly, Nebraska



G. A. Spidel

is being used by a number of Nebraska teachers. Its use is designed to:

1. Give a statement of the teacher's objectives for the project.
2. Give a statement of the student's objectives for the project.
3. Set forth a clear and precise assignment to the student, making plain what is expected of him and the importance of each requirement.
4. Provide a basis for evaluating the project and determining the grade upon completion.

In accomplishing these results, the Merit Schedule is entirely fair, for the boy knows from the first upon what he is being judged. If he shirks responsibility, if he does not have the ownership of his project, if he neglects to follow improved practices, if he has too small a project, if he keeps records carelessly, if he neglects to make his final analysis, he knows, without being told, exactly how his rating will be affected. The boy who really desires to make a creditable showing in his project work knows definitely what he must do. Thus we employ the principle that the marksman must be able to see the target if he is to improve his marksmanship. Because of these qualities the Merit Schedule should make an excellent basis for comparing projects for scholarship or State Farmer honors.

How to Use the Merit Schedule

Copies of the schedule should be placed in the hands of the students when the study of the project and project plans is introduced. Their attention should be called to each requirement and the necessary explanations should be made. Before the schedule can be applied, the teacher must have set up definite standards for the scope of projects. These standards should state the minimum acceptable size, the recommended size, and the additional points awarded for exceeding the recommended size. Thus, we may say for the baby beef project that one calf is the minimum, two the recommended size, and that 25 points are given for each additional animal. In the egg-laying pro-

ject 50 hens may be considered the minimum, 100 the recommended size, and $\frac{1}{2}$ point is awarded for each hen over 100. In applying this standard, 75 points (full credit) is allowed for the recommended size. Fifty points only are allowed for the minimum size. The boy with 4 calves or with 200 hens would be allowed a total of 125 points.

It should be understood, however, that these additional points are awarded only if the boy has full ownership of the project.

If desired, separate standards may be made for beginning and advanced students. The same purpose may be achieved, however, by using the same standard for all students but requiring

Item	Possible points	Points earned	Date approved
Plan: Organized on the job basis with each job constituting a paragraph. A clear statement of improved practices to be followed. Neatly copied in book.	75	—	—
Preliminary financial estimate: Statement of estimated costs, production, and receipts	75	—	—
Analysis of project: Comparison of final outcome with estimated outcome, giving reasons for differences. Comparison of results with standard cost of production data and with results obtained by other boys.	75	—	—
Final story: To be written from the entries in the diary and the main facts in the analysis of the project. To state unusual obstacles encountered and the degree to which improved practices were followed. Should include a definite statement of experience and knowledge gained.	75	—	—
Scope: (Size of project as indicated by animals or acres involved. Standard to be set up.)	75	—	—
Improved practices: (List of required improved practices for different projects.)	200	—	—
Ownership: The ideal project is owned by the boy. Where this is not possible, points will be credited according to degree of ownership.	75	—	—
Responsibility: As much of the labor and managerial responsibility as possible should be assumed by the boy. When this is shifted to others, a reduction in points will be made.	75	—	—
Financial success: (Based on entire supervised practice experience for the year.)	50	—	—
Neatness in record keeping: Legible penmanship, 25. Record kept in ink, 25. Clean and free from blots, 25.	75	—	—
Accuracy of records: Entries made at regular intervals. Correct page totals. Correct summary.	75	—	—
Completeness of records: The agreement or statement of boys' understanding with father or guardian relative to ownership, profits, and feed used must be written in the records. The diary must be well kept. Horse labor and land rent must be charged in crop projects, and interest and housing and equipment in livestock projects.	75	—	—
Total	1,000	—	—

ing a higher total score for boys repeating a given project.

Since one of the dominant objectives in supervised practice work is to secure the adoption of improved practices, this item has a heavier weighting in the schedule than any other. The determination of credit for improved practices makes it necessary for the instructor to set up a standard list of improved practices for each type of project. If he desires, certain practices may be given increased weight. If not, the boy's score would be determined by computing the percentage of recommended practices he had followed. Thus if he carried out 50 per cent of the practices, he would be allowed one-half of the points allotted to this item in the schedule.

The same list of improved practices may not be applicable to different boys with the same type of project. Thus, the boy who starts with the unbred sow or gilt will be held for the flushing of the sows, for keeping a record of breeding date, and for the management of the sow prior to farrowing, to induce exercise and to insure proper feeding. The boy who buys the bred sow just before farrowing will not be held for these practices. It will be necessary to determine for each project precisely which improved practices are applicable, and upon this list the number of points will be determined.

Some of the items in the schedule are based not so much upon theoretical considerations as upon painful experience. Teachers learn in supervising projects that facility in the three "R's", intelligence, and personal qualities of the boys must be taken into consideration in choosing methods to be used and in establishing standards. As a result, a number of items in the schedule seem to be quite elementary. For instance, some boys are prone to turn in records with illegible penmanship. Many records are not as neat as they could be. Page totals are frequently incorrect. Summary pages are often inaccurately made out. Items of expense, as horse labor, husking of corn, the dairy, and land rent, are sometimes omitted. For this we may be inclined to blame our over-complicated system of accounting, but with a schedule pointing to a definite penalty for each shortcoming the quality of work is definitely improved.

Each boy may keep his Merit Schedule in his project record book, or it may be filed with the teacher and returned to the boy at such times as group or class study is being made of the project. The schedule should be before the boy during individual conferences relating to the project. Thus no opportunity is given the boy to forget the project requirements.

The total points possible by meeting recommended standards is 1,000. Theoretically this might be exceeded by the student who increases the size of his project. A passing grade may be established at 70 per cent or 700 points, although many projects carried on without benefit of the schedule will score well below this level. It is not unreasonable to hope that the consistent use of the schedule or similar device will improve the quality of supervised practice work 10 to 30 per cent.

The Use of the Agricultural Outlook in Project Study

R. M. ADAMS, Instructor in Agriculture, Forest Grove, Oregon

IN A very vital way we are all concerned with making our agricultural projects educational. This objective cannot be completely realized without instilling in our pupils a degree of foresight which will assist them in realizing the greatest financial gain from their efforts. As this is true of projects, so it is true of all farming, although in a larger way. The realization of this fact has led to a very marked growth within recent years in the service being rendered to our farm people by the U. S. Department of Economics. This expansion has largely taken the form of Agricultural Outlook Reports. They are chiefly concerned with production, market situation, and price trends, presented in essay, outline, tabular, and graphic form. The problem before us for consideration is, what use can we, as agriculture instructors, make of these reports in project study?

To begin with, any effort on our part is opposed by unbusiness-like practices by parents of the pupils. Too many parents are still concerned only with production and little with marketing. In most of these homes little faith is held in so-called "book farming". Then again, our pupils have little or no economic training. They cannot think in economic terms. They understand nothing of economic law. Finally those that do get some understanding of what economic law is and of the purpose of the Outlook Reports, find the prophesies in them do not always work out; they are not 100 per cent dependable as a basis for farm crop and livestock planning. I mention some of these difficulties because no method of presenting or using Agricultural Economic Reports can be adequate without taking them into consideration.

Perhaps the easiest way to consider this problem is to approach it chronologically. We deal first with boys as freshman. In many cases their projects will have been largely determined for the first year before they enroll in high school. Surely if these economic trends have any value and should be used at all, it should be in connection with project selection and planning. A poor market outlook calls for retrenchment and the most favorable growing conditions if any production is to be undertaken, and a good market outlook may call for expansion. What use can be made of these helps with our freshman project plans? As these freshman boys have practically no background of understanding and we have had very little chance to give them any instruction, the only use that can be made of this information is in the advice given by the instructor as to the kind and size of projects. This advice should consider, as one factor, economic trends in the enterprises proposed for projects. Discussions arising from such advice will often include mention of the Agricultural Outlook Reports. After the boys start to school, we always spend a couple of days discussing the requirements for a satisfactory project. One of these requirements is a good

market outlook. The importance of this factor is easily emphasized by calling attention to prices obtained locally within the past few months on some farm products.

In the second year the boy, the instructor, and the family are all better acquainted, and the boy is a year older. Again the agricultural outlook must be considered in the expansion and continuation of each project. A foundation has been laid for the use of agricultural outlook information. I assign the reports as references to be read in connection with project planning. This practice is rather disturbing at times, for it may result in a retrenchment program of some boy for whom the instructor has had great hopes as to growth in size of project. Here is a good opportunity for a redirection of effort, a choice of other and more promising enterprises.

As soon as boys start to study these reports, they will start to question their reliability. This calls for a more complete discussion than has heretofore been given. As neither time nor background allow the use of textbooks on economics, the instructor should assume the burden of this explanation. This I do by presenting the operation of the law of supply and demand and price cycles, showing by as many local instances as possible at first, how they have been working out. Strawberries have furnished me with a very potent example over the past six years, as they have completed one and a half cycles in price trend during that time. National and world trends are next pointed out.

Consideration must still be given to the boys who remain skeptical. Factors which tend to delay or nullify the normal operation of economic law must be explained to the group. The chief of these, as far as the farmer is concerned, is the weather. A drought may cause a crop shortage and high prices where the reverse was prophesied a few weeks previously, and the opposite may be true if the weather is unusually favorable.

The question now is sure to arise; with all of these uncertainties can we count on these prophesies at all? The best way that I have found to meet this problem is to point out the certainty of long-time trends as shown best by graphs, and the success of the farmers in the community who are successful in gauging prices and tendencies. I point out that insofar as a farmer is able to gauge these prices and their trends on any farm commodity correctly, he ceases to be a gambler and becomes a man whose business is much more safe and sure.

The Agricultural Outlook Reports are the greatest help which the farmer has ever received in this connection.

In the third and fourth years of high school most of us have our classes combined and alternate them, or teach only three years of work. I alternate agricultural engineering and farm problems. The course in farm problems gives the chance that I want to make the greatest use of the material along this line, and to establish life-long habits in the

(Continued on page 48)

Methods

The Problem Procedure in Teaching Agriculture

Bringing the Problem to a Satisfactory Conclusion

J. A. STARRAK, Iowa State College

IN THE preceding article an attempt was made to emphasize the importance of the assignment and to illustrate the technique for assigning a problem to a class for study. A study period is supposed to have intervened, and we are again before our class, faced with the task of bringing the problem to a successful conclusion. This is a most important task, and one which makes heavy demand on a teacher's skill. It is important because of the opportunity which it presents to the teacher to guide the thinking of his pupils and thus to develop in them the foundations of their mental habits. In other words, this is the class exercise in which the teacher has a chance to study the operation of his student's mind, to note the weaknesses which exist in his thinking process, to eradicate these weaknesses, and to substitute in their stead sound mental habits.

Obviously, therefore, this exercise must be different from both the time-honored lecture and the class recitation. Both teacher and pupils will take part in it, but not in the capacity of inquisitor and culprit. They will unite as free agents in an earnest, joyful search after the truth. But the teacher must be responsible for the success of this search. It is he who must give it the proper direction, who must guide the thinking processes of the students, tactfully pointing out the errors which they habitually make and patiently fostering the development of sound mental habits. To do all this effectively is no easy matter. In fact, it demands the highest degree of skill.

It is apparent that a major part of the activity involved in arriving at the proper conclusion of the problem will consist of open discussion. A general technique for leading a discussion on the solution of a problem has already been submitted in a preceding article. In this proposed technique no distinction was made between the different types of problems. It is probable however that some slight but significant differences may exist in the techniques best adapted to the inductive, judgment, and creative types, but limited space prevents an extended treatment at this time. At any rate, these particular techniques will follow the same general pattern.

The problem assigned in the preceding article is an inductive problem, although stated as a judgment problem. Its purpose is to bring out in a meaning-

This article brings to a close the series of four articles dealing with the problem procedure in teaching agriculture written by Dr. Starrak. The first article appeared in the June issue.—Editor.

ful way the significant facts concerning two types of houses, i. e., the individual and the community. The proper technique to follow in leading the discussion of a problem of this type may be very briefly outlined as follows:

1. *Collect written conclusions of the problem from the students.*

2. *Call on several individual students to state orally their conclusions, getting every student committed to some one or other of the conclusions suggested before allowing reasons to be given.*

3. *Select one of the proposed conclusions and call on individuals advocating it to give their reasons in support of their conclusion.* Call upon the duller and more timid of the class first. The brighter ones will be able to contribute after the less able ones have exhausted their resources.

4. *Encourage the students to check upon the veracity and relevancy of each statement as it is proposed.* Those which survive this initial test may be written down under one another on the board.

5. *Next, call for the arguments in favor of the alternative conclusions, subjecting each to the same checking described above.*

6. *Next, evaluate the significance and relative importance of the arguments submitted.* Different schemes have been suggested as aids in this evaluation process. Benjamin Franklin recommended cancelling out those, one in each column, which seemed to be of equal significance. Others recommend a scoring process by which numerical values are given to each fact to represent its importance. The sums of these values in the two columns would indicate the proper conclusion. While it is possible to criticize either or both of the plans suggested, it is apparent that this evaluation of the facts is a very important part of the thinking process and must be done as carefully as possible.

7. *Lead the class to a satisfactory statement of the solution which seems to be in accordance with the facts.* It may be found at times that no one of the conclusions suggested and tested in the way suggested above can be accepted without some modification which the facts seem to warrant. Or again the problem may be such that no definite

solution exists, and the purpose of the problem has been achieved when the facts on both sides have been brought out and evaluated. For instance, "What is the best breed of hogs to raise in this community?" may serve the purpose of bringing to light the peculiar qualities of the different breeds, but it cannot always be solved in terms of the selection of any one breed. About as far as one may go in stating the solution to such a problem is to conclude that there is no best breed of hogs and that any one of the two or three standard breeds already being raised successfully in the community would constitute a good choice.

Even in the case of such a problem, however, practice in a sound thinking procedure may be given to the students before arriving at a solution, by having them evaluate the relative significance or weight of the various considerations set forth as factors in the situation.

The problem we are using as an example in this article is somewhat of this type, since the choice of the type of house to be adopted by any bona fide farmer would depend on other factors besides the points of differences between the two types of houses, which is all that the statement of the problem involves.

In the procedure suggested below, an attempt is made to demonstrate how practice in weighing considerations may be given.

Discussion

Teacher: This is the day we come to a showdown on the superiority of the individual or community hog houses. Please pass in your written statement of the conclusion which you have formulated.

(The students have been taught to keep always the original or "scratch" paper of their conclusions and reasons.)

Teacher: Which of the two types of houses have you chosen? John? Henry? William? Peter?

Let me see the hands of those who decided with John and Peter in favor of the small movable type of house? Now let us see how many agree with Henry and William in their choice of the community or large permanent type?

Teacher: I see that Albert did not express any choice. What is your conclusion of this problem?

Albert: I believe that the right answer to the hog-housing problem in-

volves the combination of both types of houses.

Teacher: What do you think of Albert's suggestion? Peter?

Peter: He is probably right if the problem called for a housing program, but we are merely asked to decide between the two types of housing. A complete housing program is another story. (Most of the class voice their agreement.)

Teacher: Of course Albert is right in seeing that there is a larger problem involved in providing housing for hogs than simply deciding between the two types of hog houses. Do you think he is right when he says that an adequate housing program calls for a combination of both types of houses? We must meet this problem some day, but the problem we are attempting to solve now requires only that a choice be made between two types of houses, and perhaps we should stick to this problem now. Why have you decided that the individual type of house is the better, John? (John's reasons are passed upon by the class, one at a time, and if quite generally agreed that they are valid and relevant, they are listed under one another on the board.)

Teacher: Why did you conclude that the individual house is better? Henry? James? Rupert? (Additional reasons given by Henry, James, and Rupert are subjected to the same scrutiny, and if accepted are written on the blackboard. All the advocates of the individual house are given an opportunity to contribute to the list, which will appear somewhat as follows when completed.

Advantages of Individual Type of Hog House

1. Ground can be kept clean by moving houses, thus controlling parasites. (McLean County System)

2. Sows with new-born litters can be more easily and completely segregated, thus controlling diseases such as scours.

3. Individual houses can be readily constructed on the farm, and the number may be increased gradually to fill growing needs.

4. Lower initial cost per number of hogs housed.

5. Less fire risk, due to wide distribution over large area.

Teacher: Now it is your turn—Why did you decide in favor of the community or central house? William? (The same procedure as outlined above is followed, several students being brought into the discussion. The following list is built up, and placed on board in column parallel to preceding list.)

Advantages of Community Houses

1. Inside of farrowing pens can be more thoroughly cleaned.

2. Time and labor in feeding and management are saved by all equipment and feed being under one roof.

3. Construction, being more substantial, gives greater permanence to building.

4. Better ventilation can be provided.

5. Easier to heat than individual houses.

6. Closer attention can be given to the herd at critical periods, with greater ease.

7. Easier to provide sunlight, as individual houses are not adapted to use of windows.

8. Less equipment required in community type to care for equal number of hogs.

9. A well-built community house adds more to the appearance of farmstead than does the individual.

Teacher: Well it appears that the community house has won, since it has nine points advantage as against five for the individual type. Shall we call the problem settled, Walter?

Walter: No, all these points are not of the same weight. I still believe that the five advantages of the individual house outweigh the nine for the community house. (Several express agreement.)

Teacher: Well, here we have the various arguments you have given in two columns side by side. If we cannot decide the superiority by simply comparing the number of arguments or considerations on each side, we must use some other method. What would you suggest? James? Peter? etc.? (Various suggestions were made, among them one that involved listing the important considerations, giving each a maximum numerical value and then deciding to what extent each applied to the two different types of houses. This plan may be one already established and employed by class and so would be already familiar to the students.)

Teacher: What are these important considerations which are involved in deciding the superiority of types of hog houses? Rupert? Henry? etc.? (The following list is formulated and written on blackboard, also the students' notebooks—the numbers at right are not included until later.)

	I	C
1. Control of parasites (worms, etc.)	:15	:15 : 0
2. Control of contagious diseases of young hogs (scours)	:10	:10 : 2
3. Initial cost, ease of construction	:10	:10 : 5
4. Provisions for expansion of business	:10	:10 : 5
5. Fire risk	: 5	: 5 : 2
6. Ease of feeding and management	:15	: 7 : 15
7. Ventilation and sunlight	:10	: 5 : 10
8. Heating (for early spring pigs)	: 5	: 3 : 5
9. Amount equipment required	:10	: 5 : 10
10. Appearance (influence on farmstead)	: 5	: 0 : 5

100 70 59

Teacher: Now are we ready to go ahead with our comparison of the two types? (The necessity for some sort of a scheme to provide a more objective evaluation of the extent to which each type of house embodies each of the considerations is made apparent. It is suggested to place a relative value on each one of the points listed. After some discussion the values opposite the different points in first column at right are agreed upon.)

Teacher: Let us try and evaluate as

accurately as possible the proper weight to be given to each consideration in our list as it applies to each of the types of houses. (This is done with the result shown above in columns "I" and "C" in which the totals favor the individual type.)

Teacher: What statement can we make considering the relative merit of the two types of hog houses? John? Henry? etc.? (The following statement is formulated and accepted. "Based purely upon a consideration of the peculiar advantages and disadvantages of the individual and community type, the former would seem to possess a superiority over the latter?"

Teacher: Some of you are not very well satisfied with this conclusion. What would you like to say, Albert?

Albert: I believe that I was right when I said that it was not a question of which type of house to use, but rather that a good housing program involved the use of both types.

Teacher: How many can see that these two types of houses supplement one another, and that probably Albert is right in his contention. Let us try and remember this when we attempt to plan a complete hog-housing program as we shall do some day soon. Before doing this we shall first have to look into the different varieties of both types of houses. (The teacher proceeds here to develop the assignment for next day. The opportunity for this may have presented itself during the discussion. The problem following this one has to do with the selection of an individual house.)

A Technique in Teaching

M. H. NEWTON, Owensboro, Kentucky

CLOSE your books! Mary Jones, you've looked in your book since I said, 'Close your books.' You're trying to learn something in class. Nobody learns anything in a class of mine, I'll have you know that. Now is everybody ready? What's the subject of today's assignment?

"Thomas Brown, I see everybody's hand raised except yours. I'm calling on you for the answer."

"Miss Treat, it's something about kings and queens in England, but I got to reading about Arthur and his knights of the round table and 'Specks' Smith came over and we got to talking about a book he'd been reading about Robin Hood and Friar John, and then we got interested in Saxon Thanes, and then the War of the Roses, and it was so late I just had to go to bed, so I didn't have any time to study about these 'plant a genet' or whatever you call 'em."

"That will do, Thomas, you are always bringing in matter extraneous to the assignment and besides do not ever again in my presence refer to Algernon Smith as 'Specks.' Slang and nicknames are repugnant to my esthetic nature.

"Polly Prim, what is the subject of our lesson?"

"The precursors and successors of the Tudors."

"That is correct, Thomas, why can't you see how exactly Polly commits her lesson?"

"Tell something about Windsor

Castle. Polly, you may answer again, your answers are so exact."

"Windsor, the baronial domicile of English sovereigns."

"That's absolutely correct, Polly, I shall give you 'A' plus for your grade in history. Thomas, I see you have your hand raised, it's no use. Polly Prim has given the exact definition, and you can do no better. However, I'll hear you because no one can say I'm partial, so I'll give you a chance, although you are always finding out things not in the lesson and lowering your grade. You surely don't think you can improve on the words of the book, I hope?"

"I read a story about why they built the castle at Windsor. It is supposed to be the exact place where King Arthur, seven hundred years before, held his round table meetings. I read that a young King, Edward III, was once dancing with the Countess of Salisbury and she dropped her garter—"

"Thomas! Leave the room this instant. Such language will not be tolerated."

"Well, the king picked it up and said, 'shame on anyone who evil thinks.'

"My book went on to say there's an order of knighthood, the highest there is, named after the incident, and the king's a member and only twenty-four others may belong and they call it 'The Knights of the Garter.'

"Speck—I mean Al Smith—and I had a joke about Henry VIII. He didn't even get to marry a seventh wife, much less an eighth. He did get up and give a lady his seat on the English throne. Elizabeth slipped down into it and made 'em a mighty good queen."

"He bet me the Prince of Wales, Edward Albert, when it came his time to reign, wouldn't say, 'let George (his brother) do it.'

"The music teacher told us all this. We had a song, 'Come ye thankful people, come' and the tune was, St. George, Windsor, and she told us all about St. George and the dragon, and patron Saints, Andrew and Sandy or Alexander. I didn't tell her we were having the same things in history and I was getting it all free. But I see now it's different, and what was so interesting in music is all different in history. I'm sorry I tried to tell some music history in social studies history even if it is the same Windsor."

Three conclusions:

Once I thought if perfect teaching if all in a class could recite the lesson. Now I call it splendid teaching if I can get pupils to want to learn and I like to show them how.

Once I thought it perfect attention if in a class of say, thirty-five, there were thirty-five wiggling hands in the air to answer one question, but now if thirty-five are acquiring thirty-five different ideas at one time by studying instead of reciting, I call it superb.

Once I used to say a good teacher was one who got along well with children and I still say it; also one who could impart knowledge, but I don't think much of a human knowledge-imparting, but I prefer to say a teacher is one who is filled with an insatiable desire to accompany youth through life and help him see its joys, its usefulness, and its beauties.—Kentucky School Journal.

Suggestions on Teaching Dairy Cattle Feeding

IVAN FAY, Agricultural Teacher Trainer, Wisconsin

IF IT were possible to choose one unit of the work in animal husbandry and name it the most important, it would undoubtedly, in Wisconsin, be the problem of scientific feeding of our dairy cattle. No other factor more quickly influences the production of a herd, and no other information acquired in the agriculture classroom can be more quickly employed by boy on his home farm or show more immediate results. But if the boy is to take home this information and modify the home feeding methods, he must first be thoroughly convinced of the need of different methods and must clearly understand the *reasons* underlying the balancing of rations.

It has been found that the use of charts and of direct problems in studying this work greatly stimulates both interest and understanding on the part of the boy. The following set-up for teaching feeding-dairy-cattle problems has been found very effective by several teachers who have used it with their

classes. The charts are by W. J. Fraser of Illinois, and appeared in *Hoard's Dairyman* in 1925.

The Imperative Need of Feeding Enough

A 1,000-pound cow giving 4 per cent milk may be fed:

Ration 1
Corn silage..... 25
Alfalfa..... 8
Corn and Oats..... 3

Ration 2
Corn silage..... 30
Alfalfa..... 10½
Corn and Oats..... 4

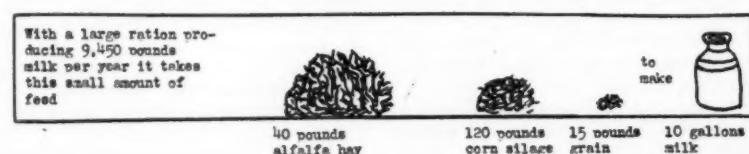
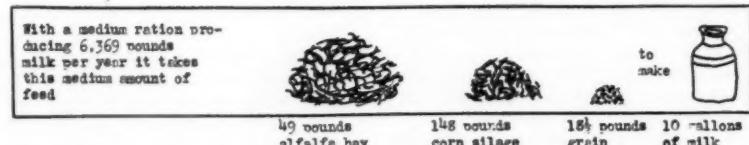
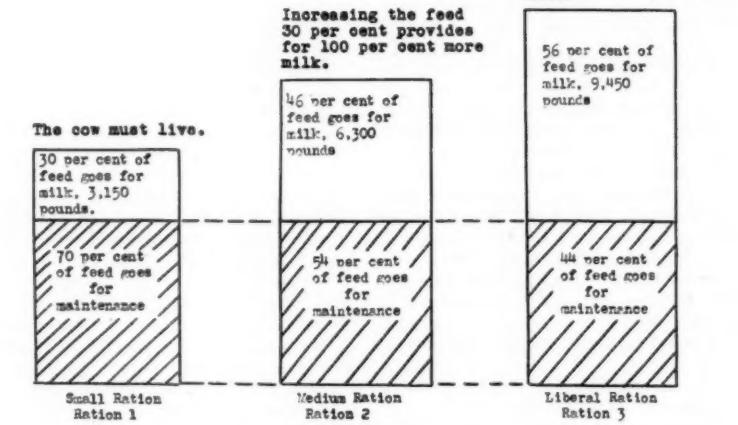
Ration 3
Corn silage..... 35
Alfalfa..... 13
Corn and Oats..... 5

The maintenance requirements for this cow are: protein .7 pound and T. D. N., 7.93 pounds.

Using Morrison's feed tables, the following digestible nutrients are found in the rations: (Next page)

WHICH RATION USES FEED THE MOST ECONOMICALLY?

Increasing the feed over the medium ration 23 per cent provides for 50 per cent more milk.





Future Farmers of America



Couchdale F. F. A. Camp and Its Functions

R. B. SMITH, State Adviser, Arkansas

COUCHDALE F. F. A. Camp, is a new institution on the shores of Lake Catherine, near Hot Springs, Arkansas. It is a new institution in a state old in F. F. A. work. Arkansas was a pioneer in the F. F. A. work, being the second state in the Union to receive a national charter, Virginia, the originator of the movement, being the first.

The soul of vocational education is supervised practice, and the F. F. A. organization is to give students educational practice in cooperative activities and leadership training. Couchdale F. F. A. Camp is a cooperative project in recreational and leadership activities, sponsored by the Arkansas Association, Future Farmers of America. It is located on a beautiful 35-acre tract of land on Lake Catherine, donated by Honorable Harvey C. Couch, Director of the Reconstruction Finance Corporation, whose intense interest in farm life has been maintained since he started on his career from the old home farm down in Columbia County, Arkansas.

Recently, at Couchdale, a beautiful state chapter house was dedicated to the cause of vocational agriculture in Arkansas by the governor of our state, Honorable J. Marion Futrell. This building is 86 by 38 feet and has a beautiful front porch 50 feet long looking out upon Lake Catherine. In this building there is a room for a library, an office, a crafts shop, an equipment room, and a large general assembly hall for both recrea-

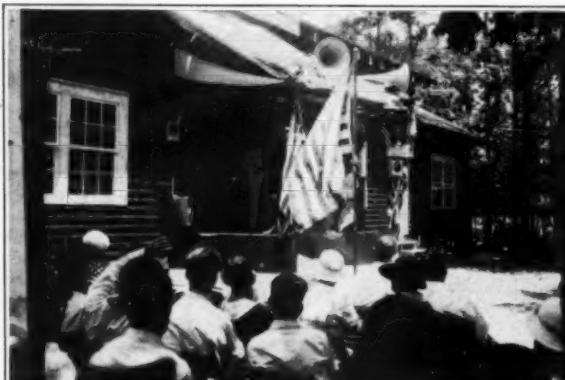
tional and educational purposes. A large native stone fireplace will be built, and stones from the various local chapters bearing the chapter name and number will be built into the fireplace. On either side of the central chapter house are a number of cabins built by county and local chapters scattered throughout Arkansas. The largest county chapter house is that built by Yell County which has seven strong local chapters. The Yell County Chapter House is a two-story building, 60 by 26 feet with sleeping quarters and other essential features. There are seven local and county chapter houses now completed. Others will be completed later. There is a boat landing, swimming beach, two ball diamonds, tennis courts, boxing ring, and a number of other features for recreational purposes. The recreational program is in charge of Mr. W. C. Higgins, agriculture teacher in the Lakeside school nearby. A permanent keeper is always on hand at Couchdale.

Couchdale is not very far from the vocational population center of the state. Last year 1,565 farm boys registered

at Couchdale to help with the construction of the camp and participate in the recreational program. This is the record for any state organization. Most of the actual cost of constructing and operating this camp comes from membership dues, paid in by local chapters throughout the state. A certain portion of these dues is set aside for a recreational and leadership-training fund. The rest is used for agricultural educational projects which are a part of the state and national program of vocational education in agriculture.

Organization of Camp

One of the main purposes of the recreation and leadership-training school is to teach boys how to organize and accept group responsibility under new and difficult conditions. The city boy, through his Boy Scout movement and other organizations, has long had training in these lines, but farm boys have not had the opportunity, except in unusual situations. When F. F. A. boys come to Couchdale, the first thing they do is to elect a camp adviser from their teachers. Then they set about to organize their student committees to meet the problems confronting them. The discipline committee helps to take care of the camp property. The health-sanitation committee is assigned the duties of health, sanitation, and keeping the camp clean. The recreational committee is appointed to meet with the recreational director and arrange for the recreational program. Other educational features are taken care of by committees dealing with specific problems.



Upper—Honorable J. Marion Futrell dedicating State F. F. A. Chapter House Couchdale, on Lake Catherine, July 4.
Lower left—Diving in deep beach. Right—One of the two baseball diamonds in use.

Educational Activities of the F. F. A.

In olden days after our parents had received the basic tools of learning in the "little red schoolhouse", they began to sharpen them in the local literary and debating society, and later they used them proficiently in the great battle of life. Today, as soon as the tools of learning have been received in the common grade school, students are usually rushed into traditional college entrance requirement subjects which too often leave them without that training which fits them to the daily problems of modern life, for the school curriculum is not often designed for the 93 per cent who never go to college. The most up-to-date agricultural community, however, is found to have a vocational high school curriculum of home economics, vocational agriculture, and a functioning F. F. A. chapter specifically designed for those boys in that state and period of educational life where the tools of learning are sharpened in public speaking contests, agricultural contests, and a great many other functioning student activities designed both for vocational culture and the worthy use of leisure time. The F. F. A. boys are being trained for vocational proficiency in their home communities as well as for the world at large. We find that this work is functioning both as extra and intra-curricular training in the schools of Arkansas. Later these sharpened tools of learning will be used effectively where the local natural resources are, as well as in the ever-flowing stream of human progress. Couchdale is only one modern foundation stone in the progress of a rural education designed to teach farm boys how to get the most out of farm life.

In the great economic reconstruction that is now under way we find that every economic group is challenged with the task of setting up its own ethical code and standards contributing to our democratic government under the New Deal. The basic industries of agriculture are likewise challenged to set their house in order, accomplish some good for themselves in a cooperative way, and, at the same time, contribute to the general social and economic good of the nation as a whole. Agricultural education should not deal with agricultural production problems alone, but it is challenged to train for organized efforts in the agricultural industries. If results are to be obtained, it must come from an enlightened people, and vocational education is charged with training future farmers how to cooperate, how to become group minded, and how to get away from the old individualistic selfishness long found in their occupations. Student abilities can be developed only by student participation in proper educational activity. The F. F. A. with all its group activities thus becomes the practice training ground to carry out the aims and ideals of vocational education in agriculture. These ideals are expressed in the motto of the national F. F. A. organization and embody the true spirit of vocational education:

- Learning to Do
- Doing to Learn
- Earning to Live
- Living to Serve.

The Western States Future Farmer Hour

W. T. SPANTON, Agricultural Agent, Pacific Region, Federal Board for Vocational Education

RECENTLY a communication was received addressed to the Future Farmers of America in care of a radio station which each month broadcasts the "Western States Future Farmer Hour." It was written by a crippled veteran of the Spanish-American War and recounted his early "agricultural education," which consisted of long hours of drudgery, no improved practices, no financial interest.

Another letter was received from a young married woman who has a brother still in high school. The boy does not know what he wants to do and has little chance of employment upon graduation. The woman asks whether "Walter cannot get some of this practical education about which you Future Farmers talk over the radio."

A wealthy petroleum refiner has his boy in a private school. The youngster is growing up a dissatisfied snob, unable to do things for himself. The father listened to a Future Farmer radio program and wrote to a vocational agriculture school asking if his boy could enroll in agricultural courses.

These are a few actual examples of persons who have been started on a new line of thought through this monthly radio feature over the western network of the National Broadcasting Company. Only a few have written letters; thousands have learned and have been given a new understanding of our nation-wide program of vocational education in agriculture.

The Western States Future Farmer Hour is in the middle of its second year. It has established itself as an integral part of the vocational agriculture program in the West. It has developed under trying circumstances, with changes made from time to time to bring improvements. It is developing a unity among educators and Future Farmers.

The first program over the network was broadcast March 4, 1932. It was decidedly an experiment. The music was furnished by a high school band playing its first numbers over the air. The principal speaker could not appear, and his speech was read. For its interest over the western states the program depended upon a group of congratulatory telegrams sent in by state supervisors of agricultural education.

From this beginning has come a standardized, permanent program. Use of student music organizations has been largely curtailed, after it was learned that the public was contrasting their efforts with the professional studio orchestras appearing on other days of the month. Regular news items come in from state supervisors to make it as much as is now mechanically possible "a Western States program." The hour has been shifted from Friday to Saturday, to permit the program to be sponsored solely by the Future Farmers and the National Broadcasting Company.

The program is now given the first Saturday of each month from 12:15 to 1 o'clock noon, over ten stations affiliated with the National Broadcasting Company. All are first-rank stations, and the network covers every part of the Western Region. Stations releasing the Future Farmer hour are: KGO, San Francisco; KFI, Los Angeles, KGW, Portland; KOMO, Seattle; KHQ, Spokane; KFSD, San Diego; KTAR, Phoenix; KDYL, Salt Lake City; KGIR, Butte; and KGHL, Billings.

The total cost of the broadcast is embodied in the expenses of the individual speakers who come to the San Francisco studio where the programs originate. Up to the present time this expense has been borne by the boys themselves and the local advisers of the Future Farmer chapters. The National Broadcasting Company furnishes the time on the air, an announcer, and a high-quality professional orchestra whose services have a retail value of more than \$12,000 per year. Under the present arrangement all programs must originate from San Francisco. The exception is that if arrangements can be made with the Los Angeles affiliated studio, two programs each year may be broadcast from this originating point.

Under this set-up, it is obvious that California must furnish virtually all of the speaking talent. Even the nearest adjoining states are at a prohibitive distance so far as sending speakers or talent is concerned, except for special occasions. No fund is available to bring speakers regularly from Oregon, Montana, Colorado, Arizona, or other western states. It is obvious that it was necessary to find some means to provide interest in the other western states, which, because of geographical location, could not be personally represented on the program. This was done in two ways.

The first was to insure the radio audience against a localized program. All speakers, both adult and junior, must prepare their material to interest listeners in the entire region. A boy telling of project operation applicable only to his own community, county, or state does not provide radio material. An adult guest speaker confining his talk to work done in a farm cooperative or farm organization peculiar to his own state must revise it so as to bring in conditions which obtain in all of the western states.

The second important detail is the news feature. A portion of the program is set aside each month for a resume of the highlights of activities in each of the states. This is frequently sent in by telegraph on the morning of the broadcast, particularly when a state convention or contest is in progress at the time. Results of feeding trials, winners of competitive events, awards of accomplishments, and the like, are broadcast to thousands of listeners each month over the Future Farmer hour. (Next page)

There must be some agency to carry on this program month after month, centralize the cooperative effort of supervisors in the eleven western states, provide a full quota of speakers and prepare the continuity four weeks in advance. This work has been carried on through the State Bureau of Agricultural Education at Sacramento, California. The direct responsibility has been delegated to the State Vocational School at San Luis Obispo, and it is here that the Western States program is developed each month.

The monthly programs have been standardized as to form but varied as to makeup. An adult guest speaker, two Future Farmer speakers, an interview between an educator and a Future Farmer, and the news items make up the usual 45-minute program. Time is provided for from 20 to 25 minutes of orchestra music, and the balance of spoken parts. Special dates bring themes for the programs from month to month, and no two speakers have the same message.

This development will undoubtedly continue to grow. Some plan may be found to permit speakers from other states to participate, either through a travel fund or a change in the originating point of the program. Other developments may make it possible to broadcast the program on a week-day when students can listen in as a group at their local school.

The tangible value of the program up to the present is impossible to measure. Certainly it has created new friends for vocational agriculture and brought a new respect for the Future Farmers of America; certainly it is worth the effort expended. It must become the personal interest of every vocational agriculture teacher and supervisor in the West, for upon such concerted effort depends the success of any cooperative venture.

Wyoming F. F. A. Active This Summer

THE F. F. A. activities for the summer in Wyoming were largely concentrated during the week July 17 to 21 inclusive, at which time the state F. F. A. camp was held. The boys were brought to the camp by the teachers as they arrived for the annual summer conference of vocational agriculture teachers. On July 21 the livestock judging contest, farm shop contest, and F. F. A. public speaking contest took place, and on the previous night, July 20, the annual meeting of the state organization was held.

Other summer activities are limited to local chapter tours, and camps and picnics.

Summer F. F. A. Activities in Colorado

IN Colorado the F. F. A. is organized on a district basis because of topography. The boys in the eastern part of the state are widely scattered, and the summer activities are usually activities of individual organizations. The majority of the chapters take camping excursions into the mountains.

On the Western Slope the F. F. A. organization has secured a camp site in the Forest Reserve on Grand Mesa.

They took chapter trips and in August held a district meeting on the camp site. This district meeting included leadership conference activities.

Vacation Trip

RAYMOND N. MALOUF, Utah State Reporter

AN extensive vacation was had this summer by members of the Richfield, Utah, chapter of the Future Farmers of America, who combined recreation with education in a 12-day tour in southern Utah, Nevada, and California. This group of 113 Future Farmers and dads left their homes May 11, and during the next two weeks journeyed over a course more than 2,000 miles long. They viewed such sights as Zions National Park, Utah; Boulder City and Boulder Dam, Nevada; and Long Beach, Los Angeles, and Yosemite National park, California. The boys were given special permission to go to the bottom of the canyon at the Boulder Dam. While in Long Beach the adventurous farmers were given a free trip of inspection of the Long Beach harbor. They saw the battleship fleet stationed there, and were permitted to inspect the Chicago from funnels to the boiler room. They spent a delightful three days in Yosemite



In Front of the Museum in Yosemite National Park

National Park, seeing the high waterfalls, cliffs, and enormous trees.

No accident or sickness of any kind occurred on the trip. Trucks equipped with sturdy rails and canvas coverings provided very economical transportation. The boys camped out, taking their food and bedding from home, thus cutting expenses to a minimum. According to the chapter adviser, John R. Adams, the average cash outlay for each person to make the trip was from 10 to 15 dollars.

The chapter members made a similar trip to Yellowstone National Park last year. The outstanding success of both of these trips fully warrants that this vacation idea be continued.

Principles Which Should Control a Program in Vocational Agriculture

(Continued from page 37)

still keep the classes of satisfactory size. Form of organization should not be permitted to exclude students who would be benefited by vocational training.

(15) Courses in agriculture must give proper emphasis to marketing and other economic problems of the

farmer. Training for efficient production is important, but our present plight indicates a need for a clearer understanding of important economic aspects of farming as a business.

(16) The function and possibilities of part-time and adult courses must be recognized, and their interrelation with the high school courses must be considered. It is now generally recognized that the responsibility of the public school is no longer limited to the education of the boys and girls regularly registered and attending the formal school sessions. Extension of educational opportunities to young people out of school and to adults has been accepted as a definite function of the modern school. The vocational agriculture program must include plans for benefitting farmers especially, and to a certain degree, all members of the rural community as well. Part-time and evening courses must be looked upon as a desirable continuation of the training received during the formal school period; for certain of the adults it must serve as a substitute for such training which was not available at the time of their schooling.

School administrators and others concerned must not overlook this responsibility of the vocational agriculture teacher. If he is to carry out this work, he must not be given an undue load of course work, so that time will be available for preparation and follow up.

Use of the Outlook

(Continued from page 41)

boys of giving careful consideration to facts as presented in the Outlook Reports, in their project and farm planning. Usually the study centers around the conditions necessary for successful and profitable sale and disposal of crops, stock, and by-products. The necessity for forethought becomes very evident to these more mature boys. Now I can assign references in economic text books, magazine articles dealing with the subject, and expect the boys to be able to read and talk on the reports as they come in. Each new report becomes a reference for each boy. Not only his present project but his future farm plans are affected. In times of depression he figures costs of production by various methods, and arrives at a decision as to how low prices can go and still allow him a profit on his enterprise. He is watching for the time to expand or retrench. Let us hope that each boy will continue such practice throughout his career as a farm business man.

The Orland Grange chapter, California, has posted an \$80 fund in a local bank as a guarantee against any losses for Future Farmer project loans. As a result of this cash margin, members are able to borrow several times that amount, and some of the best projects have been financed in this way.

